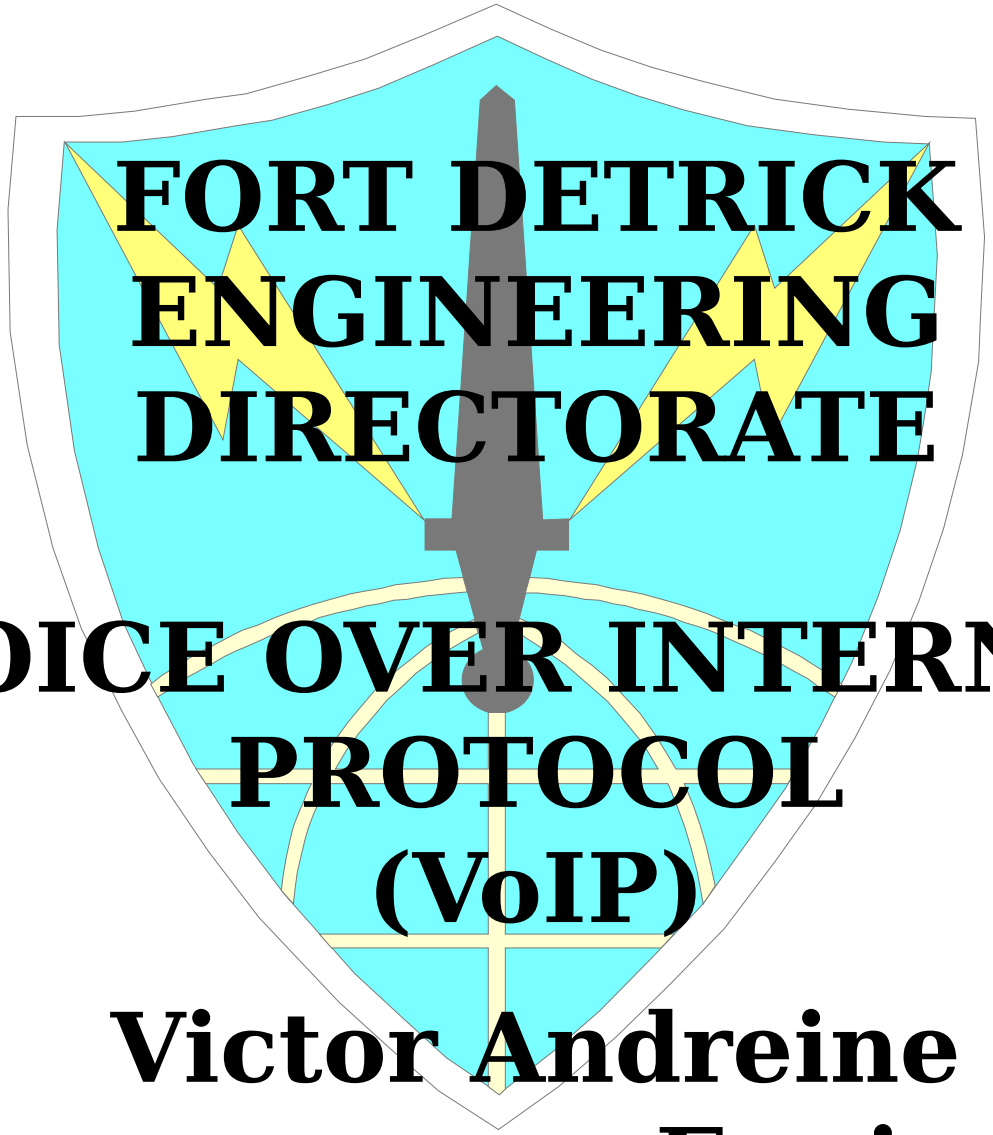

FORT DETRICK ENGINEERING DIRECTORATE

VOICE OVER INTERNET PROTOCOL (VoIP)

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10 May 2005

Agenda

- What is VoIP?
- Status of VoIP in the Army.
- Migration Strategy.
- Benefits and Risks.
- Certification.

What is VoIP?

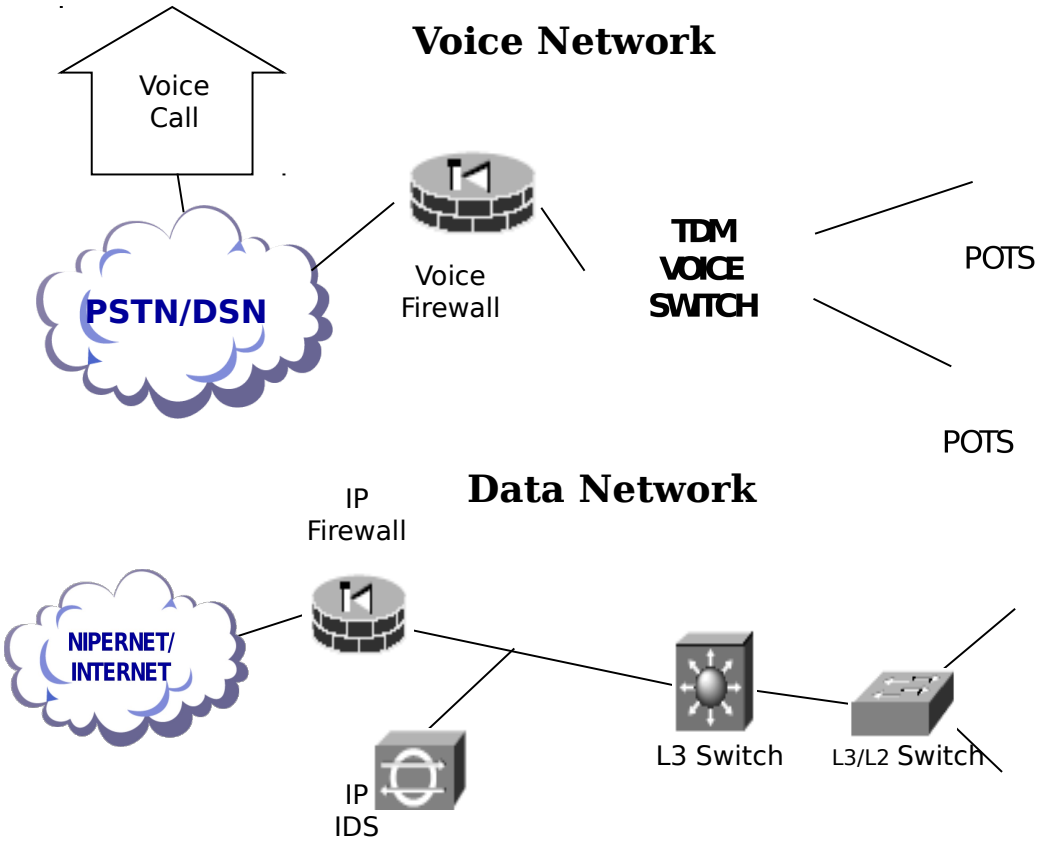
- VoIP is a technology used to send telephone voice conversations over a data network.
- Voice and data are transported over the same network.
- Technology has significantly matured in the past two years.

Status of VoIP in the Army

- Currently the Army is conducting the first sanctioned demonstrations of VoIP.
- Army will install a 180 user system at Fort Monroe (June 05).
- Army will install a 250 – 1500 user system at Fort Drum (Jan 06).
- Other non-sanctioned VoIP deployments have been independently conducted. (Hood, Carson, Lewis, Carlisle Barracks, and Picatinny Arsenal).
- ISEC established a VoIP Planning Group.

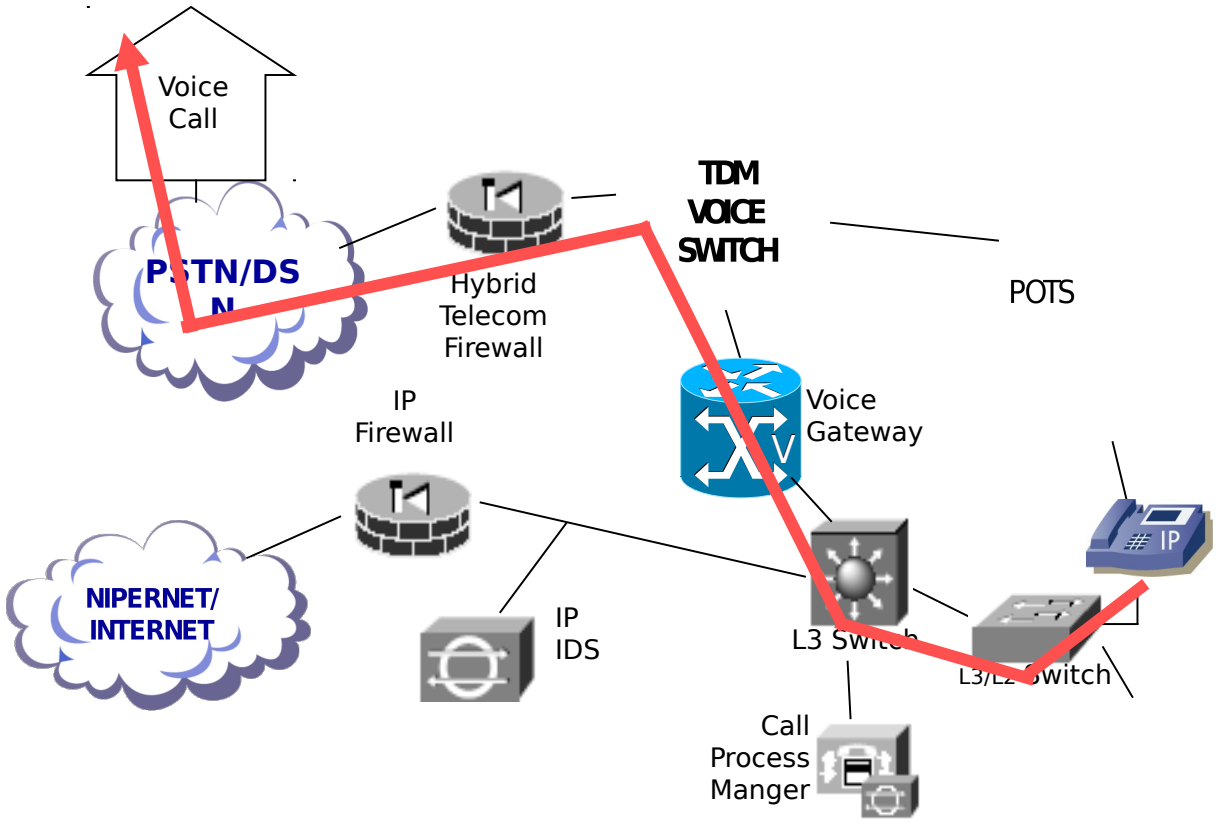
Migration Strategy

(Present architecture - separate voice & data networks)

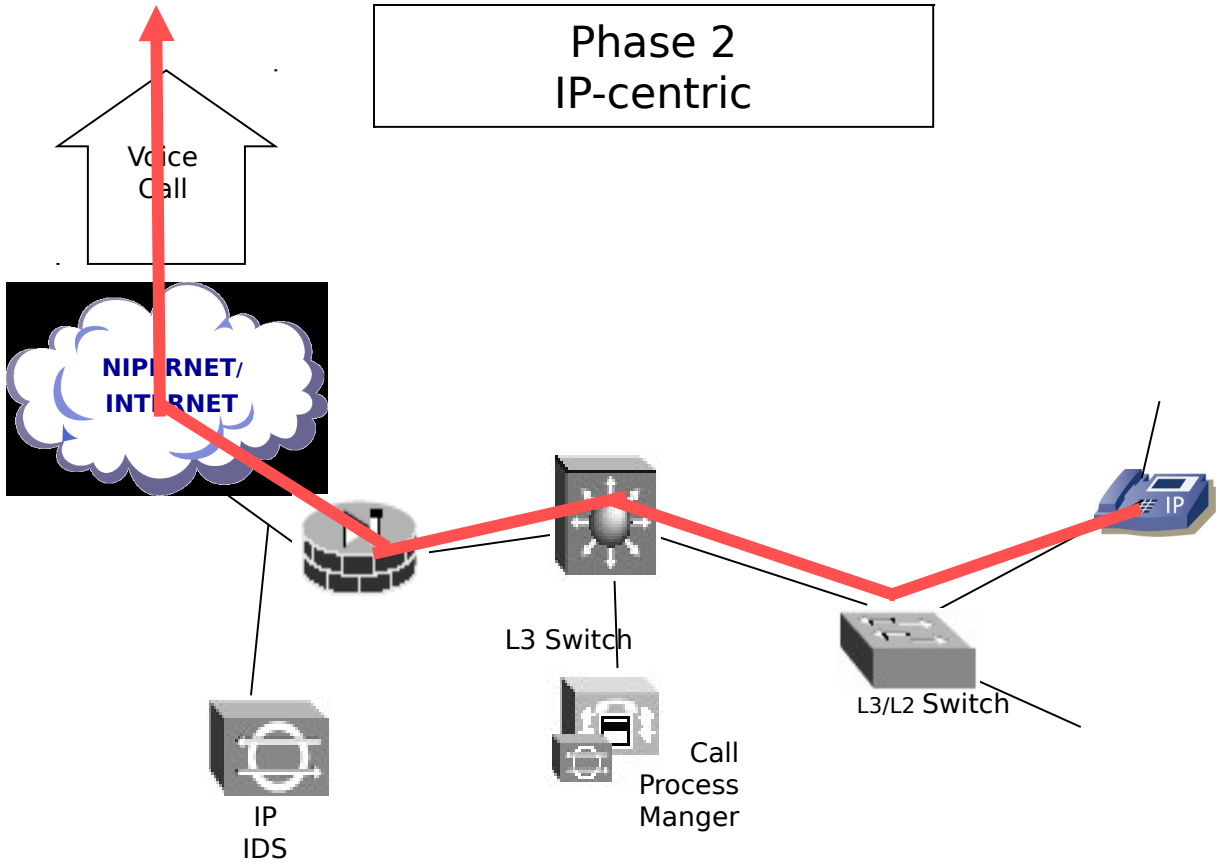


Migration Strategy

Phase 1
IP-enabled



Migration Strategy



Benefits

- Increased mobility and flexibility.
- Decrease in moves, adds, and changes (MACs).
- Easy to install and setup.
- System upgrades and replacements are easier and cheaper than the legacy voice system.
- Shared infrastructure.
- Single management platform and shared databases.
- Reduced staff.
- Toll bypass.
- Increase in features and functionality.

Risks

- Difficult to troubleshoot.
- Outages affect both voice and data services.
- IP sets are more expensive than legacy phones.
- New skill sets required for switch administrators.
- Security issues.
- Backup battery maintenance and replacement is constant and disposal is difficult and expensive.
- 911 issues.
- Incompatibility between systems, venders, and protocols.

Risks (cont.)

- Reduced reliability.
- Unique DISA requirements.

Certification

- Joint Interoperability Test Center (JITC) is currently certifying VoIP platforms as per the GSCR Appendix 3 (VoIP requirements).
- Certifications are conducted in a matched configuration (Voice Switch matched with a suite of LAN routers and switches).
- Certifications will soon be conducted in a mixed configuration (Voice Switch mixed with various suites of LAN routers and switches).

Certification (cont.)

- Avaya Voice Switch is certified as a Small End Office (SMEO) with an Extreme Networks LAN.
- Nortel Networks Voice Switch is certified as a Private Branch Exchange 1 (PBX1) with a Nortel Networks LAN.
- Cisco is certified as a PBX2 with a Cisco LAN.

Summary

- VoIP is starting to be deployed on a limited basis.
- More deployments will occur as more platforms become certified.
- Tradeoffs must be made to migrate to VoIP.
- VoIP is still new to the Army and more answers and requirements will be developed.